

Version with markings to show changes made

In the Claims:

1. (Amended) A medical device having a coating comprising the product of the reaction of:

a silane having at least one functional group selected from the group consisting of an isocyanate, an [isothiocyanate] isothiocyanate, an ester, an anhydride, an acyl halide, an alkyl halide, an epoxide and an aziridine; and

a biopolymer,

wherein the coating adheres to a surface of the medical device by covalent attachment of said silane to said surface.

2. (Original) The medical device of claim 1, wherein the weight ratio of said silane to said biopolymer is from about 1:4 to about 2:1.

3. (Original) The medical device of claim 2, wherein said weight ratio is 1:4, 1:1 or 2:1.

4. (Original) The medical device of claim 2, wherein said biopolymer is heparin or a complex thereof.

5. (Original) The medical device of claim 4, wherein said biopolymer is selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin stearalkonium chloride, heparin-poly-N-vinyl-pyrrolidone, heparin lecithin, heparin-didodecyldimethyl ammonium bromide, heparin-pyridinium chloride and heparin-synthetic glycolipid.

6. (Original) The medical device of claim 2, further comprising at least one additive selected from the group consisting of wetting agents, surface active agents and film forming agents.

7. (Original) The medical device of claim 6, wherein said film-forming agent is selected from the group consisting of cellulose esters, polydialkyl siloxanes, polyurethanes, acrylic polymers, elastomers, biodegradable polymers, polylactic acid, polyglycolic acid, copolymers of polylactic acid, copolymers of polyglycolic acid and poly(e-caprolactone).

8. (Original) The medical device of claim 1, wherein said device is selected from the group consisting of stents, catheters, prostheses, tubing and blood storage vessels.

9. (Original) The medical device of claim 8, wherein said device is made of at least one material selected from stainless steel, nitinol, tantalum, glass, ceramic, nickel, titanium or aluminum.

10. (Original) The medical device according to claim 1, wherein said at least one functional group is an isocyanate.

11. (Original) The medical device according to claim 10, wherein said biopolymer is heparin or a complex thereof.

12. (Original) The medical device according to claim 11, wherein said biopolymer is selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin stearalkonium chloride, heparin-poly-N-vinyl-pyrrolidone, heparin lecithin, heparin-didodecyldimethyl ammonium bromide, heparin-pyridinium chloride and heparin-synthetic glycolipid.

13. (Original) The medical device according to claim 12, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

14. (New) A medical device having a coating consisting essentially of the product of the reaction of:

a silane having at least one functional group selected from the group consisting of an isocyanate, an isothiocyanate, an ester, an anhydride, an acyl halide, an alkyl halide, an epoxide and an aziridine; and

a biopolymer.

15. (New) The medical device of claim 14, wherein the weight ratio of said silane to said biopolymer is from about 1:4 to about 2:1.
16. (New) The medical device of claim 15, wherein said weight ratio is 1:4, 1:1 or 2:1.
17. (New) The medical device of claim 15, wherein said biopolymer is heparin or a complex thereof.
18. (New) The medical device of claim 17, wherein said biopolymer is selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin stearylalkonium chloride, heparin-poly-N-vinyl-pyrrolidone, heparin lecithin, heparin-didodecyldimethyl ammonium bromide, heparin-pyridinium chloride and heparin-synthetic glycolipid.
19. (New) The medical device of claim 15, further comprising at least one additive selected from the group consisting of wetting agents, surface active agents and film forming agents.
20. (New) The medical device of claim 14, wherein said device is selected from the group consisting of stents, catheters, prostheses, tubing and blood storage vessels.

21. (New) The medical device of claim 20, wherein said device is made of at least one material selected from stainless steel, nitinol, tantalum, glass, ceramic, nickel, titanium or aluminum.

22. (New) The medical device of claim 19, wherein said film-forming agent is selected from the group consisting of cellulose esters, polydialkyl siloxanes, polyurethanes, acrylic polymers, elastomers, biodegradable polymers, polylactic acid, polyglycolic acid, copolymers of polylactic acid, copolymers of polyglycolic acid and poly(ϵ -caprolactone).

23. (New) The medical device according to claim 14, wherein said at least one functional group is an isocyanate.

24. (New) The medical device according to claim 23, wherein said biopolymer is heparin or a complex thereof.

25. (New) The medical device according to claim 24, wherein said biopolymer is selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin stearylalkonium chloride, heparin-poly-N-vinylpyrrolidone, heparin lecithin, heparin-didodecyltrimethyl ammonium bromide, heparin-pyridinium chloride and heparin-synthetic glycolipid.

26. (New) The medical device according to claim 25, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.